

ABSTRACT

A method of preparing graphite intercalation compounds in which graphite particles are immersed in an aqueous electrolyte media comprising both an acid and an oxidizing agent. The immersed graphite particles are subjected to an anodic current and then removed from the electrolyte and rinsed with a solvent. The excess solvent and electrolyte is then removed from the graphite particles. The graphite particles may be placed in a plating barrel which is immersed in the electrolyte and rotated while the graphite particles are subjected to the current. The resultant intercalated graphite has an expansion volume of from between about 100 ml/g to 2000 ml/g when heated to 1000°C.

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